IN THE CLAIMS

1. (Currently amended) A method for preparing a cycloolefin polymer containing polar functional groups, comprising:

a) preparing a catalyst mixture including

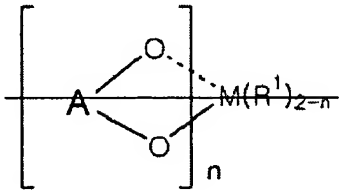
i) a precatalyst ~~represented by Chemical Formula 1, containing a Group 10 transition metal having a ligand containing oxygen ions bonded to the metal~~selected from the group consisting of Pd(acetylacetonate)$_2$, Pd(acetate)$_2$, and (allyl)Pd(acetyl acetonate);

ii) a first cocatalyst which is ~~an organic compound containing a Group 15 element~~tricyclohexylphosphine; and

iii) a second cocatalyst which is ~~capable of providing an anion and weakly coordinating to the metal of the precatalyst~~dimethylanilinium tetrakis(pentafluorophenyl)borate; and

b) subjecting a monomer solution comprising a norbornene-based compound having an exo isomer content of more than 50 mol%, containing a polar functional group, and represented by the following Chemical Formula 5, to an addition polymerization reaction in the presence of an organic solvent and the catalyst mixture, at a temperature of 80-200 ℃, the total amount of the organic solvent being 50-800 % by weight based on the total weight of the monomer contained in the monomer solution, and the product yield of the cycloolefin polymer being 50% by weight or more based on the total weight of the monomer wherein the polymer comprises more than 30 mol% of norbornene-based compound containing a polar functional group represented by the following Chemical Formula 5:

~~Chemical Formula 1~~



~~wherein~~

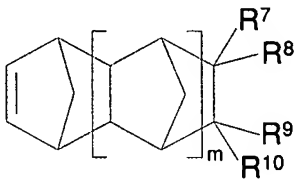
~~M is a Group 10 transition metal;~~

~~n is 1 or 2;~~

~~A represents a linear or branched C_{1-20} alkylene, arylene, aralkylene, or alkenylene group or a linear or branched C_{1-20} alkylene, arylene, aralkylene, or alkenylene group containing a hetero atom including Si, Ge, S, O, or N;~~

~~R^1 is hydrogen; a linear or branched C_{1-20} alkyl, alkenyl or vinyl group; a C_{3-12} cycloalkyl group unsubstituted or substituted with a hydrocarbon; a C_{6-40} aryl group unsubstituted or substituted with a hydrocarbon; a C_{6-40} aryl group containing at least one hetero atom; a C_{7-15} aralkyl group unsubstituted or substituted with a hydrocarbon; or a C_{3-20} alkynyl group;~~

Chemical Formula 5



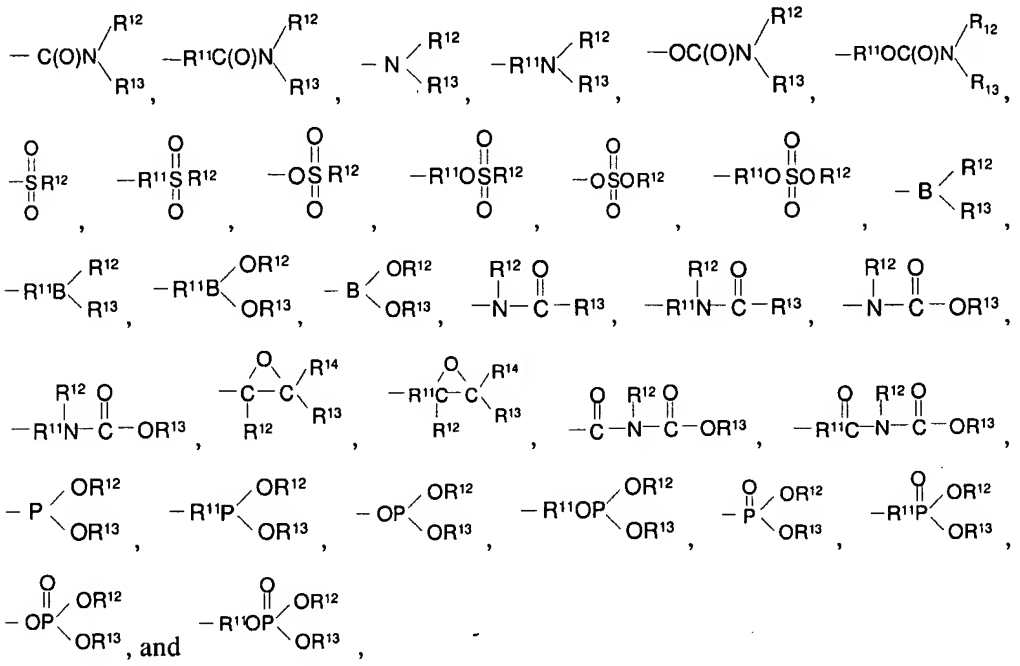
wherein

m is an integer of 0 to 4,

at least one of R^7, R^8, R^9 and R^{10} is a polar functional group, the others are non-polar functional group, and R^7, R^8, R^9 and R^{10} can be bonded together to form a saturated or unsaturated C_{1-20} cyclic group or C_{6-24} aromatic ring;

the non-polar functional group includes hydrogen; halogen; a linear or branched C_{1-20} alkyl group; a linear or branched C_{1-20} haloalkyl group; a linear or branched C_{1-20} alkenyl group; a linear or branched C_{1-20} haloalkenyl group; a linear or branched C_{3-20} alkynyl group; a linear or branched C_{3-20} haloalkynyl; a C_{3-12} cycloalkyl group unsubstituted or substituted with alkyl, alkenyl, alkynyl, halogen, haloalkyl, haloalkenyl, or haloalkynyl; a C_{6-40} aryl group unsubstituted or substituted with alkyl, alkenyl, alkynyl, halogen, haloalkyl, haloalkenyl, or haloalkynyl; and a C_{7-15} aralkyl group unsubstituted or substituted with alkyl, alkenyl, alkynyl, halogen, haloalkyl, haloalkenyl, or haloalkynyl;

the polar functional group is a non-hydrocarbonaceous polar group containing at least one of O, N, P, S, ~~Si~~ and B, and is selected from the group consisting of: OR^{12}, $OC(O)OR^{12}$, $R^{11}OC(O)OR^{12}$, $C(O)R^{12}$, $R^{11}C(O)R^{12}$, $OC(O)R^{12}$, $R^{11}OC(O)R^{12}$, $(R^{11}O)pOR^{12}$, $(OR^{11})pOR^{12}$, $C(O)OC(O)R^{12}$, $R^{11}C(O)OC(O)R^{12}$, SR^{12}, $R^{11}SR^{12}$, SSR^{12}, $R^{11}SSR^{12}$, $S(=O)R^{12}$, $R^{11}S(=O)R^{12}$, $R^{11}C(=S)R^{12}$, $R^{11}C(=S)SR^{12}$, $R^{11}SO_3R^{12}$, SO_3R^{12}, $R^{11}N=C=S$, NCO, $R^{11}NCO$, CN, $R^{11}CN$, $NNC(=S)R^{12}$, $R^{11}NNC(=S)R^{12}$, NO_2, $R^{11}NO_2$,



in which R^{11} is a linear or branched $C_{1\text{-}20}$ alkyl group; a linear or branched $C_{1\text{-}20}$ haloalkyl group; a linear or branched $C_{1\text{-}20}$ alkenyl group; a linear or branched $C_{1\text{-}20}$ haloalkenyl group; a linear or branched $C_{3\text{-}20}$ alkynyl group; a linear or branched $C_{3\text{-}20}$ haloalkynyl; a $C_{3\text{-}12}$ cycloalkyl group unsubstituted or substituted with alkyl, alkenyl, alkynyl, halogen, haloalkyl, haloalkenyl, or haloalkynyl; a $C_{6\text{-}40}$ aryl group unsubstituted or substituted with alkyl, alkenyl, alkynyl, halogen, haloalkyl, haloalkenyl, or haloalkynyl; and a $C_{7\text{-}15}$ aralkyl group unsubstituted or substituted with alkyl, alkenyl, alkynyl, halogen, haloalkyl, haloalkenyl, or haloalkynyl;

R^{12}, R^{13}, and R^{14} are each independently hydrogen; a halogen; a linear or branched $C_{1\text{-}20}$ alkyl group; a linear or branched $C_{1\text{-}20}$ haloalkyl group; a linear or branched $C_{1\text{-}20}$ alkenyl group; a linear or branched $C_{1\text{-}20}$ haloalkenyl group; a linear or

branched C_{3-20} alkynyl group; a linear or branched C_{3-20} haloalkynyl; a C_{3-12} cycloalkyl group unsubstituted or substituted with alkyl, alkenyl, alkynyl, halogen, haloalkyl, haloalkenyl, or haloalkynyl; a C_{6-40} aryl group unsubstituted or substituted with alkyl, alkenyl, alkynyl, halogen, haloalkyl, haloalkenyl, or haloalkynyl; a C_{7-15} aralkyl group unsubstituted or substituted with alkyl, alkenyl, alkynyl, halogen, haloalkyl, haloalkenyl, or haloalkynyl; or alkoxy, haloalkoxy, carbonyloxy, halocarbonyloxy; and

p is an integer of 1 to 10.

2. to 5. (Canceled)

6. (Original) The method for preparing a cycloolefin polymer containing polar functional groups according to claim 1, wherein the organic solvent is selected from the group consisting of dichloromethane, dichloroethane, toluene, chlorobenzene and mixtures thereof.

7. (Canceled)

8. (Original) The method for preparing a cycloolefin polymer containing polar functional groups according to claim 1, wherein the total amount of the organic solvent is 50-200 % by weight based on the total weight of the monomer contained in the monomer solution.

9. (Canceled)

10. (Original) The method for preparing a cycloolefin polymer containing polar functional groups according to claim 1, wherein the polymerization reaction is performed at a temperature of 80-150℃.

11. (Original) The method for preparing a cycloolefin polymer containing polar functional groups according to claim 1, wherein the catalyst mixture includes a metal catalyst complex containing a cation complex made of the precatalyst and the first

cocatalyst and an anion complex made of the second cocatalyst.

12. (Previously Presented) The method for preparing a cycloolefin polymer containing polar functional groups according to claim 1, wherein the catalyst mixture comprises, based on 1 mole of the precatalyst, 1-3 moles of the first cocatalyst; and 1-2 moles of the second cocatalyst.

13. (Original) The method for preparing a cycloolefin polymer containing polar functional groups according to claim 1, wherein the molar ratio of the catalyst mixture based on the precatalyst to the monomer contained in the monomer solution is in the range of 1:2,500 - 1:100,000.

14. and 15. (Canceled).

16. (Original) The method for preparing a cycloolefin polymer containing polar functional groups according to claim 1, wherein the monomer solution further comprises a cycloolefin compound containing no polar functional group.

17. (Original) The method for preparing a cycloolefin polymer containing polar functional groups according to claim 16, wherein the molar ratio of the cycloolefin compound containing no polar functional group is 30 % by mole based on the total monomers contained in the monomer solution.

18. (Previously presented) The method for preparing a cycloolefin polymer containing polar functional groups according to claim 1, wherein the cycloolefin polymer containing polar functional groups includes a homopolymer of a cycloolefin monomer containing a polar functional group, a copolymer of cycloolefin monomers containing different polar functional groups, and a copolymer of cycloolefin monomers containing a polar functional group and cycloolefin monomers containing no polar functional group.

19. (Original) The method for preparing a cycloolefin polymer containing polar functional groups according to claim 1, wherein a molecular weight (Mw) of the cycloolefin polymer containing polar functional groups is in the range of 100,000-1,000,000.

20. to 27. (Canceled).

28. (Currently amended) The method for preparing a cycloolefin polymer containing polar functional groups according to ~~claim 27~~claim 1, wherein the norbornene-based compound contains a polar functional group selected from the group consisting of 5- norbornene-2-carboxylic acid methyl ester, 5- norbornene-2-carboxylic acid butyl ester, 5- norbornene-2-allylacetate, 5- norbornene-2-acetate.

29. to 38. (Canceled)

39. (Previously presented) The method for preparing a cycloolefin polymer containing polar functional groups according to claim 1, wherein the polar functional group of the norbornene-based compound includes an ester group and an acetyl group.

40. to 42. (Canceled).